The Function of Information Technology in the Commercial World

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Abstract*—In order to make money, the business sector creates goods and services. The term "information technology" refers to any technology that is used to produce, process, and distribute data that is essential to operation. In order to maximize information processing and provide profitable products and services, information technology is a crucial management tool for the business sector. Regardless of your company's size, technology offers both obvious and hidden advantages that can help you generate revenue and deliver the outcomes your clients want. A company's culture, productivity, and relationships are all impacted by its technological infrastructure. It also impacts trade benefits and the protection of private data. The economic landscape is being swept by the information revolution. No business is immune to its impacts. The cost of acquiring, processing, and delivering information has drastically decreased, which is altering how we conduct business.

Keywords* —Information technology, Business sector, business relationships, competitive advantage.

I. INTRODUCTION

We are going through another technology-driven transformation as a result of information technology (IT) becoming mobile due to the installation of faster and more dependable broadband networks. firms that deal with technology-related goods, services, and procedures are known as technology-based firms. They might be high-, medium-, or low-tech. The economy's concentration on new technology-based goods and services is one sector that has experienced notable expansion, and high-tech industries are considered as key drivers of future job creation and economic progress.

On the other hand, IT encompasses the management information systems (computers, hardware, software, and networks) that facilitate and automate work and decision-making. IT is used to automate both basic, everyday jobs like word processing and more complex ones like scheduling, logistics, and production. Information technology helps firms to run effectively and financially in this way.

The economic business sector has become much more competitive in recent decades due to technological advancements. Businesses have transformed from local establishments to rivals in national and international markets by utilizing software, computers, and the Internet. In response to these developments, several businesses have automated their operations and gathered and exploited industry-related data. Businesses have also been compelled by technology to maintain their flexibility and modify their processes to accommodate better and more recent technical developments.

In the past, little more than a simple adding machine and paper records were available to business owners. Today's business owners have access to a variety of technology tools that enable them to do their tasks far more efficiently than their predecessors. Many business-related advantages are enjoyed by organization’s and people that use these technical tools.

We are aware that businesses create goods and services in order to make money. Any technology used to generate, process, and distribute information that is essential to the operation of a business is referred to as information technology. The business sector relies on information technology as a management tool to maximize information processing in order to provide profitable goods and services. Information technology-enabled automation advancements typically result in fewer employees being needed. Businesses' overall costs of producing goods and services are decreased by economies of scale that are achieved via the use of information technology. This has a hugely favorable impact on a company's financial objectives.

To make sure that a company is providing its clients with high-quality products and services, quality assurance involves conducting methodical testing. Strict quality standards aid in ensuring that corporate outputs fulfil the necessary requirements. In addition to product testing, quality assurance may be used to marketing, customer service, and accounting procedures. For company clients to receive high-quality products and services, information pertaining to accomplishing quality assurance objectives must be processed effectively and efficiently. An organization's management and operational procedures can both be significantly improved with information technology investments. Enhancing its business procedures in this way might allow a company to:

1. Significantly reduce expenses.
2. Enhance client service and quality.
3. Create novel goods for untapped markets.

New goods, services, and procedures may be developed as a result of investments in information systems technology.

This is able to:

1. Establish new business prospects.
2. Permit a business to penetrate new markets.
3. Give a business the opportunity to join new market niches inside already-existing marketplaces.

Strategically, a company's competitive edge is crucial to its success in its industry. Gaining a competitive edge now requires knowledge of information technology. Process enhancements, cost savings, communications, and quality control all work together to provide a business unit a competitive edge. But for a firm to continue to succeed, it is essential to continuously identify and analyses new risks and opportunities. Developing Internet aggregation technologies, including as blogs, social networks, and subscription databases, are turning into crucial instruments required to gain and hold advantages in the commercial sector. One of the main effects of information technology in business is the movement of information. Businesses are now more efficient than ever at gathering information from both internal and external sources. Email is increasingly a popular way for businesses to communicate, sending crucial information in almost instantaneous communications.

The Function of Technology in Information

Information technology's significance in Business partnerships

A business relationship's social interaction can be measured by the frequency of meetings between the parties or the degree of familiarity between them. The impact on the patterns of social contact that take place without the use of information technology is said to vary according to the degree to which it is used for various exchanges. One argument that could be made in theorizing about how the use of information technology affects business relationships is that as technology handles a lot of information exchanges, it eventually replaces some of the personal exchange of information, which would reduce the number of meetings or the need for meetings.

It is unclear if the demand for in-person meetings declines as information technology use rises. Meeting efficiency would likely grow as a result of information technology replacing other forms of engagement for certain kinds of interactions. However, if the technology is hard to use or is used for a different reason than increasing the efficiency of information sharing by reducing the need for meetings, then using it may necessitate more meetings. It is only possible to conjecture as to why it might be more or less necessary to have in-person meetings while using information technology in business partnerships.

Now that most organizations in all sectors of industry, commerce, and government are fundamentally dependent on their information technologies, it is interesting to analyses why and how the use of information technology affects the need for personal meetings. This paper examines the extent to which the use of information technology has reduced or increased the need for personal meetings in the investigated business relationships, as well as the extent to which such a change is related to levels of lower and higher of information technology.

The information revolution is spreading across our economy. No business can avoid its impact. Dramatic reduction in the cost of achieving, processing, and distributing information is transforming the method by which we do business. This article progresses towards the explaining and differentiating influence IT has on internal and corporate strategy in small and medium organizations. The way we conduct business is being altered by the digital revolution that is

unfolding. In the majority of our economy, no enterprise is immune to its consequences. Industries that want to stay inventive and on the leading edge of competitive advantage must adopt information technology in some capacity due to the drastic drop in the cost of achieving, processing, and sending.

Perspective on the Connection between Business and Information Technology

There are two fundamental ideas or concepts that may be successfully implemented and used inside a company to support its information technology success.

• Maintain IT Simplicity

• Connect IT Solutions to Overarching Business Strategy.

We have discovered that a lot of organizations tend to make their IT environment more complicated. We think that information technology doesn't need to be difficult and shouldn't be. We think businesses should concentrate on keeping "IT" simple. When an organization's information technology is streamlined and consolidated, there is

• Reduced or decreased expenses,

• Improved efficiency and better uniformity,

• Easier overall administration,

• Capacity to react to change more quickly.

• Better utilization of resources (people, software, and technology);

Here are some suggestions for keeping "IT" simple:

• Set hardware and software standards

• Create and adhere to policies and processes,

• Keep records of your network setup,

• Buy and utilize tested goods from reputable and well-known suppliers,

- Use business workstations exclusively for business purposes,
- Choose and integrate application systems carefully.

Our experience has shown that an environment grows more complex and rigid the more complex it is. As a result, maintaining and/or altering the environment requires more time and effort, which raises operating and maintenance expenses.

We have discovered that by keeping IT simple, money may be redirected from regular maintenance and operations to strategic IT and/or operational requirements that support the broader organizational aims and objectives. What relevance do the previously discussed principles of competitive strategy have for the strategic function of information systems? Numerous competitive tactics may be put into practice with the help of information technology. The five fundamental competitive strategies—differentiation, cost, innovation, expansion, and alliance—as well as other methods that businesses might strategically employ information technology to obtain a competitive advantage are included. As an example:

1) Reduced Prices
2) Make a distinction
3) Be creative
4) Encourage Development
5) Create Partnerships
6) Boost effectiveness and quality
7) Create an IT platform
8) Additional tactics

- Create switching costs that keep suppliers and consumers locked in by utilizing inter organizational information systems.
- To create barriers to entry against outsiders in the industry, employ IT investments.
- Make using IT components to replace competitor goods unappealing.

Business Process Reengineering

In today's market, business process reengineering (BPR), or just reengineering, is one of the most often used competitive tactics. The goal of reengineering is to drastically enhance corporate processes in terms of cost, quality, speed, and service by rethinking and redesigning them. In order to make a firm a more formidable and successful competitor in the marketplace, business process reengineering (BPR) combines a strategy of creating significant changes to business processes with a strategy of encouraging business innovation.

How Can You Put Business Process Reengineering into Practice in Your Business?

When examining information technology, management may make the right investments, cut costs, and add value by keeping the organization's mission and overall goals in mind. We advocate for a top-down strategy, and the seven-layer OSI (Open Systems Interconnection) Model is a great tool for considering IT requirements. OSI is an international standard that helps developers, implementers, technicians, and service providers make sure hardware and software interact correctly and that end users and the network can communicate.

We discovered that the same method may be applied when considering your information technology requirements. It is feasible to match your information technology requirements and business procedures with your organization's overarching strategy and objectives by taking a broad view. Business processes are driven by strategy, objectives, mission, and culture. The essential tasks (who, what, why, where, and how) are determined by business processes. The tasks include the hardware and software requirements for information technology that need to be researched, chosen, and put into practice.

Talking about the duties and information technology requirements is where the difficulty arises. The line of communication is prone to malfunction. Many people refer to this as the "IT Divide." Every side has its own lingo, acronyms, and distinct experiences. The required needs, restrictions, gaps, and potential solutions that are a good match cannot be explained by either party in a way that the other can comprehend. Out of annoyance with one another, technologists, managers, and executives all go their separate ways. Additionally, business strategy and process alignment with IT is neglected. A shared understanding is the key to success in information technology. Every member of the team must consider the big picture and approach the answer with the same perspective and objective.
It is feasible to match information technology requirements and business procedures with an organization's overarching strategy and objectives if this happens. Employee motivation, happy clients, and lower expenses are the outcomes.

Technology and information system capabilities: One of the most important BPR enablers is a relevant and effective IT system. It would be impossible to monitor every element influencing the change without such a system. Establishing information systems capable of handling the scope of the change is essential before embarking on a dramatic BPR initiative.

Create, construct, and test the new prototype: A prototype is tested prior to the release of any new product. It is never appropriate to carry out a testing failure on a wider scale. The failure to see and accept any constraints at the testing stage is one of the main reasons why BPR initiatives fail most of the time. Among other things, it is important to thoroughly evaluate how the management feels about the new method of working and how the people feel about the change.

Organizational adaptation: The last step in a successful project is managing the change brought about by BPR efforts. Offering revised organizational structures, governance models, authority and responsibility charts, and documentation reduces uncertainty and facilitates a seamless transfer to the new method of working.
Reengineering business processes is an extreme change endeavor that cannot be replicated if it fails the first time. It is frequently a high-risk endeavor that entails financial outlay and the possibility of demoralized workers. It must have the support of upper management and have a wide range of functions.
It's critical to recognize and comprehend that BPR is not a 100% successful strategy. It has the same chance of failure as any other activity.

A successful BPR program may be achieved if:
• The demands of the customer come first, and this vision is used to properly guide business operations.
• Cost benefits that increase the organization's competitiveness in its industry can be attained.
• All operational procedures are viewed from a strategic perspective, and pertinent enquiries concerning the current workflow and its potential for long-term development into more effective business procedures are made.
• A desire to focus on results rather than tasks and conventional functional boundaries is present.
This allows entire processes to be discarded or combined into a smaller number of more effective and relevant processes across the entire organization.
• There is a genuine desire to streamline operations by evaluating all tasks and activities impartially and getting rid of those that add complexity and less value.

A BPR initiative will not succeed if:
• It is seen as a means of improving and making little changes to current procedures. There is no possibility of success if there is no explicit desire to put every current procedure on the chopping board.
• It is viewed as a one-time cost-cutting measure. In actuality, cost savings are frequently an incidental benefit of the activity rather than the main issue. It is also a continuous shift of perspective rather than a one-time event.

• Attempts to get long-term, committed engagement from management and staff have failed. It's challenging to get people on board, and many BPR projects fail because insufficient effort is made to get support.
• Automating takes more work than redesigning.
• The process is sacrificed in favor of one department. To attain total efficiency, there must be a readiness to make any necessary adjustments and an openness to thoroughly examining each process.
• Too much attention is being paid inward, with little attention paid to the industry or the best practices of competitors that may serve as standards.

Competitive Advantage and Information Technology
Even though the goal of any information technology business unit is to improve the performance of modern firms by improving the quality of managerial decisions, the firm's agility status and, thus, the likelihood of gaining an IT-Business competitive advantage are compromised when IT and business objectives are not adequately aligned.

The strategic function of information systems is to use technology to create capabilities, services, and products that provide a business a competitive edge over the forces of competition in the global market. Information systems that support or influence an organization's competitive position and strategy are created as a result. A strategic information system may thus be any type of information system (such as TPS, MIS, DSS, etc.) that aids an organization:
1) Get an edge over the competition
2) Minimize a disadvantage in the market
3) Fulfil additional strategic business objectives
Information technology is a crucial component of contemporary businesses' competitive advantage since it facilitates management decision-making and links all company operations, two things that are necessary to reach the organization's agility level.
IT has a significant impact on competitive advantages in every business, whether they are differentiation or cost. Additionally, the technology influences value activity itself or gives businesses a competitive edge by taking advantage of shifts in the competitive landscape. According to Porter (1996), IT has three main effects on competition:
• It modifies the laws of competition by changing the structure of the industry.
• It gives businesses new opportunities to surpass their competitors.
• It generates competitive advantage.
• It gives rise to whole new businesses, frequently from inside an organization's current activities.
The concept of IT as a source of competitive advantage has been developed by several academics over the past ten years, with a particular emphasis on IT capabilities. An overview shows four distinct relationships:
1) IT has a direct and positive impact on competitive advantage and firm performance.
2) IT has a direct and negative impact on these factors.
3) IT has no effect or connection to competitive advantage or firm performance.
4) IT has a contingent impact on these factors.
• As a resource, IT may help boost productivity and growth. Since they found no correlation between IT investment and competitive advantage, the question of whether IT may be a source of competitive advantage remains unanswered.
• The total profitability (firm performance) is higher with IT skills.

II. CONCLUSION

The way firms compete can be altered by information technology. Accordingly, information systems should be viewed strategically, that is, as essential networks for competition, as a way to revitalise an organisation, and as an investment in technology that enable a business to accomplish its strategic goals.

Additionally, the data indicates that it is not easy to convert ICT investment into increased production. Usually, complementary investments and adjustments are needed, such as in organisational transformation, innovation, and human capital. ICT-related developments are also a result of a search and experimenting process, which has led to some businesses succeeding and expanding while others failing and going offline. It's possible that nations with corporate environments that support this process of creative destruction would be better equipped to capitalise on the advantages of ICT than those where such changes are more challenging and take longer to happen. Because of this, small firms are investing in information and communication technologies in order to broaden the uses of information systems to support their business plan and gain a competitive edge based on the unique capabilities generated in their markets. Thus, business performance is positively impacted when an organization's

information systems strategy and business strategy are in the line.

REFERENCES

[1] Henderson, J. C., & Venkatraman, N. (1993). Strategic alignment: Leveraging information technology for transforming organizations. IBM System Journal,32(1),4-16.

[2] Internet:http://www.entrepreneurialinsights.com/business-competitive-business-processreengineering-bpr/

[3] Internet:http://www.informationr.net/ir/123/paper314.html

[4] Internet:http://www.entrepreneurialinsights.com/business-competitive-business-processreengineering-bpr/

[5] View of Information Technology's Relationship To Business,www.ladenterprizes.com, June 2008

[6] The Phoenix Project, Gene Kim, Kevin Behr, George.

[7] E Business: New Trends and Technique, Ram Khandelwal.

[8] E-Commerce, Jeffrey Rayport, Bernard Jaworski, 2000

[9] The Complete E-commerce Book, Janice Reynolds.

[10] e-Business Essentials: Technology and Network Requirements for the Electronic Marketplace, Mark Norris, Steve West.

[11] Ecommerce: Formulation of Strategy, Robert Plant.

[12] E-Business and E-Commerce for Managers, Harvey M. Deitel, Paul J. Deitel.

[13] The startup Owner's Manual: The Step by Step Guide for Building a Great Company, Steve Blank.

[14] The Long Tail: Why the future of Business is Selling Less of More, Chris Anderson.